

Title (en)

ALIGNER, DEVICE MANUFACTURING METHOD, MAINTENANCE METHOD AND ALIGNING METHOD

Title (de)

AUSRICHTUNGSVORRICHTUNG, BAUELEMENTEHERSTELLUNGSVERFAHREN, WARTUNGSVERFAHREN UND AUSRICHTUNGSVERFAHREN

Title (fr)

ALIGNEUR, PROCEDE DE FABRICATION DE DISPOSITIF, PROCEDE DE MAINTENANCE ET PROCEDE D ALIGNEMENT

Publication

**EP 1724815 A4 20071024 (EN)**

Application

**EP 05709879 A 20050208**

Priority

- JP 2005001827 W 20050208
- JP 2004033679 A 20040210

Abstract (en)

[origin: EP1724815A1] An exposure apparatus can prevent disadvantages of supplying liquid of reduced cleanliness and formation of watermarks. The exposure apparatus (EX) exposes a substrate (P) by irradiating exposure light (EL) onto the substrate (P) via a projection optical system (PL) and a liquid (LQ), and includes a liquid supply mechanism (10) for supplying the liquid (LQ), and a measuring device (60) which measures a time during which the supply of the liquid from the liquid supply mechanism is stopped (10).

IPC 8 full level

**G03F 7/20** (2006.01); **H01L 21/027** (2006.01)

CPC (source: EP KR US)

**G03F 7/2041** (2013.01 - KR); **G03F 7/70341** (2013.01 - EP KR US); **G03F 7/70716** (2013.01 - KR)

Citation (search report)

- [Y] WO 9949504 A1 19990930 - NIKON CORP [JP], et al
- [Y] US 2003136763 A1 20030724 - NAKAGAWA TOSHIMOTO [JP], et al
- [PA] WO 2004105107 A1 20041202 - NIKON CORP [JP], et al
- [A] US 2001019399 A1 20010906 - HAGIWARA SHIGERU [JP]
- See references of WO 2005076323A1

Cited by

EP3318928A1; EP1727188A4; WO2005081292A1; US8023100B2; US7804576B2; US8456608B2; US8891055B2

Designated contracting state (EPC)

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DOCDB simple family (publication)

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**EP 05709879 A 20050208**; EP 10177051 A 20050208; JP 2005001827 W 20050208; JP 2005517784 A 20050208; KR 20067015916 A 20050208; US 45724709 A 20090604; US 58814605 A 20050208